=> s us6710043/pn1 US6710043/PN

=> analyze 11 ENTER ANSWER NUMBER OR RANGE (1-):1 ENTER DISPLAY CODE (TI) OR ?:rn

ANALYZE L1 1 RN : L2

57 TERMS

=> fil reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 13.05 12.84

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 15:38:27 ON 10 MAY 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

9 MAY 2005 HIGHEST RN 850130-09-5 STRUCTURE FILE UPDATES: 9 MAY 2005 HIGHEST RN 850130-09-5 DICTIONARY FILE UPDATES:

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \* The CA roles and document type information have been removed from \* \* the IDE default display format and the ED field has been added, \* effective March 20, 2005. A new display format, IDERL, is now \* available and contains the CA role and document type information. \* \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=> s 1257 L2 L3

=> s 1357 L2 L4

=> s 14 and piperazin? 576449 PIPERAZIN? 11 L4 AND PIPERAZIN? L5

=> d 1-11

ANSWER 1 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN T.5 RN 283167-27-1 REGISTRY

ED Entered STN: 04 Aug 2000

CN Piperazine, 1-acetyl-4-[2-(4-fluorophenyl)-2-oxoethyl]-,

monohydrochloride (9CI) (CA INDEX NAME) C14 H17 F N2 O2 . Cl H

SR CA

MF

LC STN Files: CA, CAPLUS, USPAT7, USPATFULL

CRN (749837-14-7)

● HCl

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN

RN **283167-23-7** REGISTRY

ED Entered STN: 04 Aug 2000

CN 1-Piperazinesulfonamide, 4-acetyl-N-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C12 H16 F N3 O3 S

SR CA

LC STN Files: CA, CAPLUS, USPAT7, USPATFULL

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN

RN 283167-21-5 REGISTRY

ED Entered STN: 04 Aug 2000

CN 1-Piperazinecarboxylic acid, 4-[[(4-fluorophenyl)amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H16 F N3 O3

SR CA

LC STN Files: CA, CAPLUS, USPAT7, USPATFULL

$$\begin{array}{c|c} O & & & \\ \hline MeO-C & & & \\ \hline N & & C-NH \\ \hline \end{array}$$

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN

RN 283167-20-4 REGISTRY

ED Entered STN: 04 Aug 2000

CN 1-Piperazinecarboxamide, N-(4-fluorophenyl)-4-[4-(trifluoromethoxy)benzoyl]- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C19 H17 F4 N3 O3

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN

RN 283167-04-4 REGISTRY

ED Entered STN: 04 Aug 2000

CN 1-Piperazinecarboxylic acid, 4-[(4-pyridinylamino)carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C15 H22 N4 O3

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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L5 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN
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RN **283167-03-3** REGISTRY

ED Entered STN: 04 Aug 2000

CN 1-Piperazinecarboxylic acid, 4-[[(4-fluorophenyl)amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C16 H22 F N3 O3

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN

RN **283167-02-2** REGISTRY

ED Entered STN: 04 Aug 2000

CN 1-Piperazinecarboxamide, 4-acetyl-N-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C13 H16 F N3 O2

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

# \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN

RN 283167-01-1 REGISTRY

ED Entered STN: 04 Aug 2000

CN 1-Piperazinecarboxamide, 4-acetyl-N-4-pyridinyl- (9CI) (CA INDEX NAME)

FS 3D CONCORD

MF C12 H16 N4 O2

SR CA

LC STN Files: CA, CAPLUS, USPATZ, USPATFULL

### \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN

RN 274686-11-2 REGISTRY

ED Entered STN: 05 Jul 2000

CN 1-Piperazinesulfonyl chloride, 4-acetyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1-Acetyl-4-piperazinesulfonyl chloride

FS 3D CONCORD

MF C6 H11 C1 N2 O3 S

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN

RN 57260-71-6 REGISTRY

ED Entered STN: 16 Nov 1984

CN 1-Piperazinecarboxylic acid, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

### OTHER NAMES:

CN 1,1-Dimethylethyl 1-piperazinecarboxylate

CN 1,1-Dimethylethyl piperazin-1-carboxylate

CN 1-(tert-Butoxycarbonyl)piperazine

CN 1-(tert-Butyloxycarbonyl)piperazine

CN 1-Piperazinecarboxylic acid tert-butyl ester

CN 1-[(1,1-Dimethylethoxy)carbonyl]piperazine

CN 4-(tert-Butyloxycarbonyl)piperazine

CN N-(tert-Butoxycarbonyl)piperazine

CN N-BOC-Piperazine

CN N-tert-Butyloxycarbonylpiperazine

CN tert-Butyl 1-piperazinecarboxylate

FS 3D CONCORD

DR 131339-76-9

MF C9 H18 N2 O2

CI COM

LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CSCHEM, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, SYNTHLINE, TOXCENTER, USPAT2,

```
USPATFULL
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(\*File contains numerically searchable property data)

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1190 REFERENCES IN FILE CA (1907 TO DATE) 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA 1192 REFERENCES IN FILE CAPLUS (1907 TO DATE)

ANSWER 11 OF 11 REGISTRY COPYRIGHT 2005 ACS on STN L5

13889-98-0 REGISTRY RN

ED Entered STN: 16 Nov 1984

Piperazine, 1-acetyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME) CN OTHER NAMES:

CN 1-(Piperazin-1-yl)ethanone

CN 1-(Piperazinyl)ethanone

CN 1-Acetylpiperazine

CN 4-Acetylpiperazine

CN N-Acetylpiperazin

CN N-Acetylpiperazine

CN NSC 39649

FS 3D CONCORD

C6 H12 N2 O MF

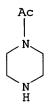
CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

Other Sources: EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

399 REFERENCES IN FILE CA (1907 TO DATE)

401 REFERENCES IN FILE CAPLUS (1907 TO DATE)

2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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13889-98-0 or 57260-71-6 or 274686-11-2
             1 13889-98-0
                 (13889-98-0/RN)
             1 57260-71-6
                 (57260-71-6/RN)
             1 274686-11-2
                 (274686-11-2/RN)
             3 13889-98-0 OR 57260-71-6 OR 274686-11-2
L6
=> d his
     (FILE 'HOME' ENTERED AT 15:38:02 ON 10 MAY 2005)
     FILE 'CAPLUS' ENTERED AT 15:38:08 ON 10 MAY 2005
              1 S US6710043/PN
L1
L2
            ANALYZE L1 1 RN :
                                   57 TERMS
     FILE 'REGISTRY' ENTERED AT 15:38:27 ON 10 MAY 2005
             57 S L2
L3
             57 S L3
L4
L5
             11 S L4 AND PIPERAZIN?
                    13889-98-0 OR 57260-71-6 OR 274686-11-2
L6
              3 S
=> s 15 not 16
             8 L5 NOT L6
L7
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=> fil caplus COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 26.56 39.61

FILE 'CAPLUS' ENTERED AT 15:40:53 ON 10 MAY 2005 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2005 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 10 May 2005 VOL 142 ISS 20 FILE LAST UPDATED: 9 May 2005 (20050509/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 17 L8 2 L7

=> d bib abs hitstr 1-2

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L8 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
```

AN 2000:861479 CAPLUS

DN 134:29431

TI Agent for expression of long-term potentiation of synaptic transmission comprising compound having brain somatostatin activation property

IN Matsuoka, Nobuya; Satoh, Masamichi

PA Fujisawa Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 74 pp. CODEN: PIXXD2

DT Patent

LA English

FAN CNT 1

os

FAN.	CN.I.	T																		
	PATENT NO.					KIND		DATE			APPLICATION NO.						DATE			
							_									_				
PΙ	WO 2000072834				A2 20001207			WO 2000-JP3334					20000524							
	WO 2000072834				A3 20020711															
		W:	BR,	CA,	CN,	JP,	KR,	US												
		RW:	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR	, GB,	GR,	ΙE,	IT,	LU,	MC,	NL,		
			PT,	SE																
	US	6344	358			B1		2002	0205		US :	1999-	3217	45		1	9990	528		
	ΕP	EP 1235575			A2	A2 20020904			EP 2000-929854						20000524					
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	, IT,	LI,	LU,	NL,	SE,	MC,	PT,		
			ΙE,	FI,	CY															
	JP	2003	5221	20		Т2		2003	0722		JP :	2000-	6209	46		2	0000	524		
	US	2002	0907	32		<b>A</b> 1		2002	0711		US :	2002-	4159	2		2	0020	110		
	US	6613	572			B2		2003	0902											
PRAI	US	1999	-321	745		Α		1999	0528											
	WO	2000	-JP3	334		W		2000	0524											

AB The present invention relates to an agent for the expression of long-term potentiation of synaptic transmission, which contains a compound having a brain somatostatin activation property as an active ingredient and to a screening method of an agent for the expression of long-term potentiation of synaptic transmission, which uses a somatostatin releasing property as an index. E.g., to a solution of O-Ph N-(4-pyridyl)carbamate in 1,2-dichloroethane was added a suspension of 1-acetylpiperazine to give 1-acetyl-4-(4-pyridylaminocarbonyl)piperazine.

IT 283167-01-1P 283167-02-2P 283167-03-3P 283167-04-4P 283167-20-4P 283167-21-5P 283167-23-7P 283167-27-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of agents for expression of long-term potentiation of synaptic transmission)

RN 283167-01-1 CAPLUS

MARPAT 134:29431

CN 1-Piperazinecarboxamide, 4-acetyl-N-4-pyridinyl- (9CI) (CA INDEX NAME)

RN 283167-02-2 CAPLUS

CN 1-Piperazinecarboxamide, 4-acetyl-N-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

RN 283167-03-3 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[(4-fluorophenyl)amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 283167-04-4 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[(4-pyridinylamino)carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 283167-20-4 CAPLUS

CN 1-Piperazinecarboxamide, N-(4-fluorophenyl)-4-[4-(trifluoromethoxy)benzoyl]- (9CI) (CA INDEX NAME)

RN 283167-21-5 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[(4-fluorophenyl)amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 283167-23-7 CAPLUS

CN 1-Piperazinesulfonamide, 4-acetyl-N-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

RN283167-27-1 CAPLUS

Piperazine, 1-acetyl-4-[2-(4-fluorophenyl)-2-oxoethyl]-, monohydrochloride CN (9CI) (CA INDEX NAME)

## ● HCl

ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN Г8

2000:493515 CAPLUS AN

DN 133:105053

Preparation of acylpiperazines, acylpiperidines, and related compounds as ΤI cholinergic agonists.

IN Yamada, Akira; Aoki, Satoshi

PA Fujisawa Pharmaceutical Co., Ltd., Japan

PCT Int. Appl., 68 pp. SO

CODEN: PIXXD2

DTPatent

LΑ English

FAN.CNT 1																
PATENT NO.				KIND D		DATE			APPLICATION NO.					DATE		
ΡI	PI WO 2000042011				A1 20000720			WO 2000-JP17						20000106		
		AE, A														
		DE, D	K, EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,
			ΣE, KG,													
		MW, M	IX, NO,	ΝZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,
		TR, I	T, UA,	UG,	US,	UZ,	VN,	YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,
		•	J, TM													
	RW	: GH, G		•	-	-	-									
		-	S, FI,	-									SE,	BF,	ВJ,	CF,
			:I, CM,											•	0000	
							CA 2000-2360360 EP 2000-900121									
	R:	AT, E					FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			I, LT,						_					_		
	BR 200									2000-						
	TR 200									2001-						
	JP 200	2534503	3	Т2		_			JP 2	2000-	5935	79		2	0000	106
	JP 361						0202							_		
	AU 760						0515		AU 2	2000-	1890	4		2	0000	106
	AU 200		•			2000										
	RU 220						0720			2001-						
	ZA 200						0909			2001-				_	0010	
	US 671	0043		В1		2004	0323		US 2	2001-	8699	62		2	0010	710

	нк 1044337	A1	20041126	HK 2002-105923	20020813
	JP 2004002414	A2	20040108	JP 2003-132491	20030512
	US 2004014745	A1	20040122	US 2003-618743	20030715
PRAI	AU 1999-8180	Α	19990114		
	JP 2000-593579	A3	20000106		
	WO 2000-JP17	W	20000106		
	US 2001-869962	A3	20010710		
OS	MARPAT 133:105053				

AB R1ANR3EXR4YQR2 [R1 = acyl; R2 = (substituted) alkyl, alkoxy, alkylamino, alkenyl, alkenyloxy, alkenylamino, cycloalkyl, aryl, aryloxy, arylamino, heterocyclyl, acyl, etc.;, A = bond, CO, SO2; E = (substituted) alkylene; X = CH, N; Y = bond, alkylene, imino; Q = CH2, CO, SO2, N:CH; R3, R4 = H, alkyl; R3R4 = alkylene optionally condensed with cyclic hydrocarbyl or heterocyclyl], were prepared Thus, 1-acetylpiperazine in THF was treated with 4-fluorophenyl isocyanate followed by stirring for 1 h to give 1-acetyl-4-(4-fluorophenylcarbamoyl)piperazine. The latter at 1 mg/kg i.p. in rats gave 1.14 penile erections/h.

IT 283167-01-1P 283167-02-2P 283167-03-3P 283167-04-4P 283167-20-4P 283167-21-5P 283167-23-7P 283167-27-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of acylpiperazines, acylpiperidines, and related compds. as cholinergic agonists)

RN 283167-01-1 CAPLUS

CN 1-Piperazinecarboxamide, 4-acetyl-N-4-pyridinyl- (9CI) (CA INDEX NAME)

RN 283167-02-2 CAPLUS

CN 1-Piperazinecarboxamide, 4-acetyl-N-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

RN 283167-03-3 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[(4-fluorophenyl)amino]carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 283167-04-4 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[(4-pyridinylamino)carbonyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

RN 283167-20-4 CAPLUS

CN 1-Piperazinecarboxamide, N-(4-fluorophenyl)-4-[4-(trifluoromethoxy)benzoyl]- (9CI) (CA INDEX NAME)

RN 283167-21-5 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-[[(4-fluorophenyl)amino]carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

RN 283167-23-7 CAPLUS

CN 1-Piperazinesulfonamide, 4-acetyl-N-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

RN 283167-27-1 CAPLUS

CN Piperazine, 1-acetyl-4-[2-(4-fluorophenyl)-2-oxoethyl]-, monohydrochloride (9CI) (CA INDEX NAME)

RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT